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**(54) DEPROTECTION METHOD**

**(57) Abstract:**

**PURPOSE:** To carry out the deprotection of a protected functional group by the catalytic hydrogenation with H<sub>2</sub> released from a hydrogen-occluding alloy composed mainly of a compound having a CaCu<sub>5</sub>-type hexagonal crystal structure and containing Ni and a rare-earth element or Ca element as essential elements.

**CONSTITUTION:** A protected functional group is deprotected by the catalytic hydrogenation at 0-80°C with H<sub>2</sub> released from a hydrogen-occluding alloy composed mainly of a compound having a CaCu<sub>5</sub>-type hexagonal crystalline structure and containing R (rare-earth

element or Ca element) and Ni as essential elements. Preferably, the decomposition temperature of the alloy corresponding to the decomposition equilibrium pressure of 1 atm is  $\leq 200^{\circ}\text{C}$  and the average particle diameter of the alloy is 0.5-100 $\mu\text{m}$ . Since the alloy has high catalytic activity in itself, the deprotection can be carried out in high efficiency under a high-safety condition (i.e., an H<sub>2</sub> gas pressure of  $< 10\text{kg/cm}^2$ ) without using a catalyst. A large amount of H<sub>2</sub> gas can be occluded in the alloy and the alloy is available at a low cost compared with conventional Pd or Pt catalyst and is durable to repeated use.

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